

**JUNIOR CERTIFICATE
EXAMINATION**



BOTSWANA
EXAMINATIONS
COUNCIL

**2022
PROVISIONAL
SUMMARY
OF RESULTS**

22

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PART I: ADMINISTRATION REPORT

1.0 Introduction

The Junior Certificate Examination (JCE) is a standards-based assessment intended to provide information on the achievement of candidates after three years of junior secondary education, the results of which are used mainly for selection into senior secondary education, vocational and technical education as well as the world of work. The assessment of the 2022 cohort was carried out on seventeen (17) syllabuses through eleven (11) multiple-choice components, twenty-seven (27) open-ended components, three (3) practical examinations and five (5) coursework components. The 2022 cohort comprised candidates from public schools, private schools and individuals who registered with BEC.

The administration report is intended to provide a background to the environment under which the 2022 examinations were conducted. Generally, the administration went well although there were a few incidents that were recorded.

1.1 Administration of the 2022 Junior Certificate Examination

1.1.1 Registration

Registration was conducted through the online facility. All Centres registered online. The main challenge was that some Centres failed to meet the deadlines for submission of their registration entries as well as syllabus amendments. The BEC has however, applied penalties to those who failed to meet the deadlines, and it is hoped that Centres will improve, and this will eventually improve the overall efficiency of the administration of the examination.

1.1.2 Registration of Centres

In this cycle 261 Centres registered candidates compared to 248 in 2021. Out of the 261 centres, 209 were government school centres, 16 were private school centres, 17 were BOU centres while 19 were BEC private centres. The number of centres went up because of new BEC private centres as well as BOU centres that were created following the separation of examination venues between the two institutions to allow for the independent registration of candidates and administration of examinations. There were also three (3) newly registered private centres of which two (2) were able to register candidates and administer examinations for the first time.

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1.1.3 Candidature

Table 1.1: *Candidature for the Years 2018 to 2022*

Year	Government School Centres Candidates	Private School Centres Candidates	BOU Centres Candidates	BEC Centres Candidates	Total Number
2022	42 917	397	1 122	2 399	46 835
2021	42 407	721	1 694	1 445	46 267
2020	40 619	657	1 551	1 120	43 947
2019	38 608	619	962	862	41 051
2018	38 409	779	782	769	40 739

Table 1.1 shows the number of candidates who sat the examination from 2018 to 2022. About 1.3% increase has been recorded in the candidature for 2022. There was a notable increase of 6.6% at BEC centres when compared with 2021. This was because of the decision by BOU to cap their intake for 2022.

1.2 Examinations under COVID-19 Conditions

All the JCE Centres were provided with regulatory documents on how to administer examinations during the COVID-19 period. However, in 2022 there were no cases registered and examinations went on without any challenges due to relaxed COVID-19 protocols at national level.

1.3 Compliance to Examination Regulations

As with past examination cycles, the JCE Chief Invigilators were trained virtually using 'Microsoft Teams Platform' from 23rd to 26th August 2022. Prior to that, coursework and practical examinations preparatory meeting was held separately on July 28th 2022 to emphasise on expectations regarding preparatory work before submission of marks and also for practical examination preparations. Both trainings are critical as they are meant to ensure that examinations personnel are equipped to conduct examinations in accordance with set standards. A total of one hundred and ninety-six (196) Centres were able to log on and those that had difficulties were sent training material by email and on CDs. Overall, the centres complied with the laid down guidelines during the conduct of examinations even though there were a few reports of maladministration. There were no cases of malpractice recorded in this cycle.

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1.4 Maladministration and Malpractice Cases

1.4.1 Maladministration Cases

Table 1.2: Incidents Recorded at JCE

Incident type	No. of Centres	BEC Immediate Response	Action taken
Torn Question Paper packets: English Paper 1, Moral Education Papers 1 & 2 and Science Paper 2.	2	The torn question paper packets were collected by BEC officers. The Centres were advised to submit a report to BEC.	BEC replaced the torn question paper packets for the two Centres after investigations were carried out.
Opening of wrong question paper packets for components: Moral Education Paper 1 instead of Paper 2, Commerce & Office Procedures Paper 4 instead of Commerce & Accounting Paper 4.	3	In all the instances, the Centres were advised to secure the question papers and ensure that candidates sign off after the packets have been resealed.	The BEC security and JCE officers visited the affected Centres to investigate the matter as well as to collect the resealed question papers.
Translation and explanation of questions (leading) during the examination for all components for candidates with special needs. The scribes used Setswana to explain to the candidates during the examinations.	2	The audios of the candidates who were scribed for were reviewed more than twice to establish the extent of the maladministration.	The maladministration has been reported for further investigations.

Seven (7) cases of maladministration as shown in Table 1.2, were recorded in 2022 compared to four (4) cases in 2021 showing an increase in the incidents which is worrisome. The centres were cautioned in writing and will be monitored closely in the next cycle.

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1.4.2 Malpractice Cases

There were no malpractice cases recorded at JCE in 2022 as it was in 2021. This is commendable and training will continue to be conducted to ensure other incidents of maladministration are also eliminated to ensure that standards are maintained during conduct of examinations.

1.5 Coursework Moderation and Marking

1.5.1 Moderation of Coursework Marks

In 2022 JCE coursework marks were moderated statistically as the exercise started in 2021 and Centres were requested to enter marks in Malepa and submit projects, summary mark sheets and folios to BEC to facilitate the statistical moderation. A schedule of dates for capturing marks into Malepa by centre personnel was shared with centres. Most centres had issues with the payment rates and this delayed the capturing of marks. There was repeated communication to the centres to remind them of the deadlines and the implications and this somewhat improved the submission. Submission dates were extended after the pronouncement of increased rates to allow for more submissions of marks. No marks were accepted after the extended dates.

Table 1.3: Status of Submitted Coursework Marks

Coursework Component	Percentage of Marks submitted
Design & Technology Paper 3	91.10%
Home Economics Paper 3	98.95%
Physical Education Paper 2	98.49%
Music Paper 4	99.77%
Art Paper 3	99.18%

Table 1.3 shows the status of the submission of marks after the extended dates. To ensure compliance to the conduct of coursework at JCE centres, validation of coursework marks submitted for the five components was carried out in November 2022.

1.5.2 Marking

A total of 1 953 examiners were engaged to mark the 2022 JCE written papers compared to 2 178 in 2021 which was a significant decrease of 10.3%. The shortage of examiners was experienced in most components and the ones significantly affected were English Paper 3, Setswana Paper 2, Setswana

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Paper 3, and Commerce & Office Procedures. Despite the shortages, marking of all the components was completed on the scheduled date of December 21st 2022. The marking exercise was also mildly affected by power and water outage experienced at the start of marking due to severe thunderstorms.

Three hundred and eighty-seven (387) independent checkers were engaged in 2022 to check all the JCE marked components compared to three hundred and sixty-six (366) engaged in 2021. This increase was intended to respond to the slight increase in the 2022 candidature.

The JCE marking was held at two marking venues (Naledi SSS and St Joseph's College), from 6th to 21st December 2022 and went on without major challenges. Examiners however, decried the location of St Joseph's College and challenges with ablution facilities. The concerns were noted, and short-term measures were implemented while a lasting solution of more improvements, maintenance and upgrading will continue to be made to the facilities.

1.6 Access Arrangements and Special Consideration

1.6.1 Applications for Access Arrangements

Table 1.4: Status of Provision of Supporting Evidence

Status	Number of Candidates				
	2018	2019	2020	2021	2022
Provided	834	1 070	1 104	1 211	1 804
Outstanding	172	181	321	145	257
Total	1 006	1 251	1 425	1 356	2 061

A total of 2 061 applications were received in 2022 compared to 1 356 in 2021 as shown in Table 1.4. Out of the 2 061 applications, 1 804 (88%) candidates provided supporting evidence and 257 (12%) candidates did not. There was a notable increase (5%) in the applications received in 2022 compared to applications in 2021.

All candidates who applied for access arrangements at this level were deemed to be eligible and their applications were approved. For those that had not provided the evidence, the approval was subject to their submission.

1.6.2 Observations from Analysis of the Applications

1.6.2.1 Even though the deadline for applications was communicated as June 30th, every year through various platforms, several centres submitted their applications well after the deadline with requests received until the sitting of examinations. This included known special needs centres which were followed up to submit their applications.

1.6.2.2 Provisions were not made for candidates with hearing impairment to respond using sign language in some centres even though BEC provides for such.

1.6.2.3 Some of the diagnostic reports that were received from private specialists were worrisome as there was reason to believe that comprehensive assessment was not conducted to determine presence of special needs. This was evidenced by lack of differentiation when it came to reports for candidates from one centre and also inconsistencies with the findings and recommendations. Affected centres were informed and requested to refer candidates for re-assessment and to further provide individual candidate tracking data to support the applications.

1.6.2.4 Some of the requests for reader, scribe/writer and oral response were not approved due to the inconsistencies in the supporting evidence provided and the centres were given feedback and applied for other alternative arrangements. The candidates not qualifying for a scribe were all granted 25% extra time.

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1.6.3 Applications by Special Needs Type and Access Arrangement Type

The applications received this year were more of the same special needs type as those received in previous years, however, there was an increase in number of requests for most access arrangements.

Table 1.5: Access Arrangement Types and number of candidates per request

Access Arrangements	Number of Candidates					
	2017	2018	2019	2020	2021	2022
Modified Papers (LD & Extra-time)	160	595	452	679	489	450
Modified Papers (Hearing Impairment)	23	25	31	18	14	24
Extra-time	207	515	763	1025	932	1,998
Enlarged Print	44	28	56	47	52	48
Reader	208	502	629	797	672	1,039
Scribe/Oral Response	163	400	690	863	583	958
Braille	14	5	11	3	7	6
Assistive Technology Devices	14	15	1	6	7	6
Rest Breaks	36	25	49	156	74	103
Exemptions from Setswana	23	25	31	18	14	24
Preferential Sitting	8	9	0	58	32	60
Coloured Paper	0	1	0	1	1	1
Exemption from English Listening Comprehension for Hard of Hearing and Deaf Candidates	23	27	31	18	14	24
Practical Assistant	14	3	64	43	45	72

Table 1.5 shows the types of access arrangements that candidates applied for. There was an increase in all the applications except for Modified question papers (Learning Difficulties & Enlarged Print), Braille and assistive technology devices while requests for coloured paper stayed the same. All the JCE centres specified the access arrangements requested.

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1.6.4 Applications for Special Consideration

Table 1.6: Applications by Special Consideration Type

Special Consideration Type	Number of Candidates with Supporting Evidence	Number of Candidates without Supporting Evidence
Ill Health during examination at the centre or hospitalized	45	4
Bereavement (immediate member of the family of the candidate)	8	0
Social problem (Assault, Trauma, Psychological problem)	1	1
Other (Technical problem with CD player, floods)	3	3
TOTAL	57	8

Sixty-five (65) candidates from forty-one (41) centres applied for special consideration in 2022 from various categories as shown on Table 1.6. Out of these applications, fifty-seven (57) were accompanied by supporting evidence while eight (8) did not provide the required evidence. The number of applications decreased from sixty-seven (67) in 2021 to sixty-five (65) in 2022.

1.7 Processing of the JCE data

The processing of marks for JCE went very well despite some challenges experienced which resulted in delays in the conclusion of the processing of the data.

1.7.1 Scanning

The scanning of the JCE data was conducted as per the revised schedule and was concluded on the 6th of January 2023. Below are issues that affected the speed of the scanning process and subsequently the overall processing of marks for the 2022 JCE.

- As a cost-effective measure, the BEC decided to use leftover stock from the previous years. However, this led to errors in the answer sheets and marksheets due to non-personalisation of the forms.
- Despite the BEC having decided to renew the maintenance contract for the two obsolete OMR scanners, most of the time only one (1) was relied upon during the scanning of the marksheets.

The answer sheets were scanned using the new image scanners while data cleaning was done using the newly developed data validation application. This development has significantly improved the processing of answer sheets and the overall efficiency of the capturing, processing and maintenance of data integrity.

1.7.2 Online data capturing

Online data capturing of marks for senior examining personnel was planned to be done at the two marking venues: St Joseph's College and Naledi Senior Secondary School from 6th to 23rd December 2022. Eleven (11) Data Capturers were engaged in the different marking venues to capture the marks as the marking progressed. However, the capturing was not concluded as planned and had to be extended to January 2023.

PART 2: TECHNICAL REPORT

2.0 Introduction

The report presents the outcomes of the 2022 Junior Certificate Examination (JCE). It focuses on outcomes for the government centre population only which is considered to be stable therefore enabling reliable comparisons across years. JCE is a high-stakes examination informing mainly selection into senior secondary schooling and therefore it is always of paramount importance that assessments are valid to ensure fairness within and between cohorts.

This year, the total number of syllabuses graded for the examination still remained at 17 as in the previous year and these constitute a total of 46 components. Of the 46 components, 11 are Multiple-Choice, 27 Constructed Response, 3 practical and 5 coursework. It is worth noting that out of the 46 components, the 2 components for General Science are only available to private candidates. Unlike in the previous year, candidates taking Agriculture, Commerce & Accounting and Commerce & Office Procedures in government centres were assessed through an alternative paper to coursework.

Candidates at JCE are graded at component level and the component scores are weighted to obtain a syllabus grade. The syllabus grades are then aggregated following specified criteria to obtain a qualification grade. The grades available at syllabus level are on a scale of A to E, where Grade A represents the highest level of performance and grade E the lowest level. At qualification level the grades available are Merit, A, B, C, D and E. Candidates failing to meet the minimum requirements for the lowest grade (E) at both syllabus and qualification levels are unclassified and assigned letter U whereas candidates who did not meet the requirements for grading at component level are assigned letter X at syllabus or qualification level.

In preparation for grading, the standard setting exercise was conducted by Examiners during marking followed by pre-grading meetings for Product Development Officers (PDO) which were held from the 04th to the 08th January 2023. All the processes leading to the grading of the syllabuses were executed well as per procedures.

During the 2022 examination series, the candidates were provided with an opportunity to show what they know and what they can do, and to the same level of demand as in previous years. What is worth noting is that even though the 2022 cohort was not impacted by the COVID-19 pandemic at the time of the examination, they faced a challenging environment due to the COVID-19 pandemic at the commencement of their Junior Secondary programme which was characterised by learning interruptions.

Botswana Examinations Council continues to experience challenges related to coursework assessment. While all 5 coursework components met the 90% submission threshold by the extended

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submission deadline, it is regrettable that three of the components failed the validity test. Therefore, the scores from these syllabuses were excluded when determining syllabus grades. These challenges are **likely** to have an impact on candidates' performance through no fault of their own.

A post-examination adjustment that compensates candidates who were disadvantaged at the time of the examination due to circumstances beyond their control was therefore applied at a national level, where it was deemed necessary. It should be noted that such a procedure is part of best practice in exercising the principle of fairness given that the circumstances experienced by candidates were beyond their control. It should further be noted that the application of the procedure will not change the circumstances that the cohort faced as it also ensures that the integrity of the assessment is **not** compromised.

What is worth noting is that the coursework disagreements have escalated to a level where it now has far-reaching implications for the education system as a whole. Therefore, there is an urgent need for all stakeholders to engage on the coursework assessment issues to find a lasting solution otherwise the system is likely not to achieve the envisaged quality education. This also has an implication on the success of the ongoing Outcomes-Based Education reform as the philosophy is anchored on improving the acquisition of knowledge and skills leveraging on school-based assessment.

2.1 Technical Quality of Question Papers

This section presents characteristics of Multiple-Choice, Coursework, Practical and Constructed Response papers.

2.1.1 Technical Quality of Multiple Choice Papers

There were 11 Multiple Choice question papers, one of which was General Science which was available to private candidates only and therefore will not be covered here. Table 2.1 presents the statistical parameters of the Multiple-Choice question papers for 2022 against those of 2021.

Table 2.1: Statistical Parameters of the Multiple-Choice Papers

Subject	2022				2021			
	Mean (%)	SD (%)	Mean <i>P</i>	alpha	Mean	SD (%)	Mean <i>P</i>	Alpha
Setswana	53	13	.53	.71	55	14	.56	.78
English	63	18	.62	.88	69	20	.70	.91
Mathematics	42	17	.41	.82	46	17	.46	.83
Science	43	15	.43	.78	40	15	.40	.78

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Social Stu.	47	16	.47	.80	49	14	.47	.74
Agriculture	53	13	.53	.74	56	17	.54	.83
Design & Technology	53	14	.52	.74	47	12	.49	.66
Religious Education	65	17	.65	.86	58	16	.59	.82
Art	53	15	.53	.78	53	16	.53	.81
Moral Educ.	66	21	.65	.91	58	19	.58	.88

ACCEPTABLE STATISTICAL PARAMETER VALUE RANGES	
Mean P – Difficulty level	.4 - .6
Reliability (Alpha)	.8 – 1.0
Standard Deviation – dispersion/spread	12% - 20%

2.1.1.1 *Difficulty level (mean p)*

Almost all the question papers were of moderate difficulty as indicated by mean p values ranging from .4 to .6, which is the desired level of difficulty except for Religious Education and Moral Education which were on the easier side.

2.1.1.2 *Spread (SD)*

The Standard Deviation reflected that almost all the question papers except Moral Education separated candidates very well in terms of their ability.

2.1.1.3 *Reliability (alpha)*

This year, all question papers with the exception of Setswana, Agriculture and Design & Technology, presented a very good reliability index ranging from .78 to .91. This means that if the question papers were to be administered again to the same cohort, they would yield similar outcomes.

Generally, the instruments worked well in measuring abilities of the candidates and all identified deficiencies were mitigated at the point of grading. Nonetheless, more effort will be directed towards further improvement of the instruments.

2.1.2 *Coursework Assessment*

There are 8 syllabuses with a coursework component. Out of these, 3 were assessed through alternative to coursework papers. The remaining 5 were marked by centers and quality assured by BEC.

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2.1.2.1 Validation of Coursework Components

A team of subject specialists composed of retired teachers and serving Education Officers were engaged to validate the coursework scores. The exercise results revealed that 2 of the syllabuses, Home Economics and Art presented satisfactorily valid scores. On the other hand, Design & Technology, Music and Physical Education presented scores that were not authentic. In some instances, Centres presented scores without supporting evidence. Where supporting evidence was available there was a mismatch between the quality of the candidates' work and the assigned score. Therefore, in the best interest of the candidates, the three syllabuses were graded with the only available evidence, and the invalid coursework marks were disregarded.

A post-examination adjustment was affected at cohort level for the three syllabuses to ensure the candidates are not disadvantaged nor advantaged by the absence of coursework in the grading of the three syllabuses as this was a situation beyond their control.

2.1.2.2 Technical Quality of Coursework Components

Table 2.2 shows statistical parameters of Coursework components that were considered for grading. There are 3 alternatives to coursework components and 2 components that were statistically moderated.

Table 2.2: Statistical parameters for Coursework Components in 2022 and 2021

Syllabus Name	maximum Raw Score	2021		2022	
		Mean Mark (%)	SD (%)	Mean Mark (%)	SD (%)
Art	100	63.55	15.04	64	15
Commerce & Accounting	40	-	-	25	15
Commerce & Office Procedures	40	-	-	21	12
Agriculture	40	-	-	48.2	22
Home Economics	60	72.70	9.46	75	9

The parameters in Table 2.2 show that the alternative to coursework components could have been more demanding as evidenced by the low mean scores. This low mean mark could also be an indication that candidates had inadequate practical skills. Art and Home Economics have high mean scores, a situation which is common with Centre marked components. The Spread for Home Economics is narrow and the scores are clustered towards high scores indicating the inadequacy of coursework to differentiate candidates in terms of ability.

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2.1.3 Technical Quality of Practical Examination Components

Table 2.3 shows the statistical parameters of Practical Examination Components.

Table 2.3: Statistical parameters of Practical components

Syllabus Name	Component	Maximum Raw Score	2021		2022	
			Mean Mark (%)	SD (%)	Mean Mark (%)	SD (%)
Home Economics	2	70	57	20	64	20
Art	2	60	50	14	51	15
Music	3	50	53	27	59	26

Parameters in Table 2.3 show that Practical Examination Papers have desirable mean scores of about 50% which could be an indication that the instruments were of appropriate difficulty level. Except for Music, the Practical examination papers discriminated candidates' ability very well.

2.1.4 Technical Quality of Constructed Response Papers

Table 2.4 shows statistical parameters for 23 Constructed Response question papers.

Table 2.4: Statistical parameters for Constructed Response Components in 2022 and 2021

Syllabus Name	Component	Maximum Raw Score	2021		2022	
			Mean Mark (%)	SD (%)	Mean Mark (%)	SD (%)
Setswana	2	50	33	15	35	16
	3	45	52	18	47	17
English	2	60	47	23	45	22
	3	45	28	22	24	18
	4	30	58	22	52	21
Mathematics	2	100	26	19	34	24
Science	2	80	25	17	31	18
Social Studies	2	80	29	17	33	19
Agriculture	2	60	33	15	28	16
Design and Technology	2	60	35	18	41	19
Moral Education	2	60	32	23	33	22
Home Economics	1	50	34	18	42	21
Commerce and Office Procedures	1	50	14	11	22	14
	2	50	29	18	29	19

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Syllabus Name	Component	Maximum Raw Score	2021		2022	
			Mean Mark (%)	SD (%)	Mean Mark (%)	SD (%)
Commerce and Accounting	1	50	25	19	30	18
	2	50	-	-	25	23
French	1	15	21	16	24	18
	2	25	35	21	32	19
	3	60	33	23	32	22
Music	1	35	20	11	28	14
	2	50	28	17	21	15
Physical Education	1	60	37	20	33	19
Religious Education	2	60	38	21	35	21

It can be noted from Table 2.4 that most of the Constructed Response components recorded mean values way below 50% with the exception of Setswana, English, Design & Technology and Home Economics which have at least 1 component with a mean score above 40%. The Standard Deviation reflected that most of the question papers separated candidates very well in terms of their ability, to the desired level. However, the spread for 3 core syllabuses, English, Mathematics and Moral Education, is worrisome, indicating that there are extremes in performance.

2.1.5 Syllabus Mean Scores

A syllabus score is the sum of weighted component scores. The syllabus score gives an indication about the ability of a test taker and in a normal population it is expected to be around 50%. Table 2.5 shows syllabus mean across 4 consecutive years and differences between 2022 and 2021.

Table 2.5: Percentage Syllabus Mean Scores from 2019 to 2022

Syllabus	Syllabus Mean Score (%)				
	2019	2020	2021	2022	Diff. 2022-2021
Setswana	43.89	43.40	44.27	42.73	-1.54
English	45.48	43.66	47.79	43.32	-4.47
Mathematics	33.63	29.86	33.59	37.12	3.53
Science	31.15	32.00	29.51	34.33	4.82
Social studies	38.81	45.05	35.18	37.31	-2.13

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Agriculture	55.74	42.58*	54.56	41.46	-13.1
Design and Technology	45.19	49.63	43.55	45.73*	-
Home Economics	49.89	52.45	50.74	56.46	5.72
Commerce and OP	31.92	31.91	28.93	25.06	-3.87
Commerce and Acc	30.39	31.43	28.77	26.22	-2.55
Religious Education	44.28	47.52	45.23	45.63	0.40
Art	56.08	53.01	53.95	54.37	0.42
Moral Education	41.99	44.79	39.72	43.58	3.86
French	30.55	34.09	29.89	30.21	0.32
Music	41.65	39.72	40.11	38.18*	-
Physical Education	43.30	47.74	46.18	33.36*	-

*No coursework component therefore not comparable.

Art and Home Economics are the only syllabuses with a mean score above 50%. It is worth noting that Mathematics, Science and Social Studies which are core syllabuses have a mean score below 40% which indicates low performance. However, this year Mathematics and Science have recorded a significant improvement.

Unlike the previous year, Design & Technology, Physical Education and Music syllabuses were graded without the coursework component, hence the mean score differences.

2.2 The Grading Process

Grading decisions at JCE are based on a combination of professional judgement and statistical evidence where professional judgement is made by marking teams led by Principal Examiners (PE) and the statistical evidence is interpreted by Product Development Officers.

2.2.1 Standard Setting by Examiners

Standard setting as usual started at the stage of script selection in November through to December 2022 whereby Examiners analysed the 2022 examination papers against the previous year's papers for comparability of difficulty level. The exercise resulted in the determination and recommendations of cut-off scores by the component teams. The teams also formed professional impressions concerning the candidates' quality of work by comparing it to that of the cohort prior to COVID-19 period. The PEs documented the professional judgement in the PEs Grading Report which was discussed with the Product Development Officer at the end of the marking process.

2.2.2 Pre-grading

The pre-grading meetings for the 2022 JCE took place from 04 to 08 January 2023. Just like in the previous year, PEs did not join the PDOs for pre-grading. The process entailed the interpretation of statistical evidence by Product Development Officers in relation to the PEs professional judgement. The PDOs ultimately recommended cut-off scores which were presented to the Grading Advisory Committee (GAC).

2.2.3 Grading and Awarding

Validation of grading decisions by GAC took place from the 09 to 12 January 2023. The GAC had representation from within BEC, comprising of Management from Directorates of PDS, EAC and RPD. External stakeholder representation comprised of three Officers from the Ministry of Education and Skills Development: two from the Department of Educational Planning, Research & Statistics and one from the Department of Curriculum Development & Evaluation as well as an Officer from Botswana Open University.

Product Development Officers presented both the PE's and the syllabus reports to GAC. The recommendations from both reports were interrogated and well-informed decisions on cut-off scores to be applied for the 2022 examination were reached.

2.2.4 Validation of Prospective Results

The prospective results were validated from 13 to 16 January 2023 as per best practice after application of the GAC approved cut-off scores.

2.2.4.1 Examination Administration Incidents Log

The 2022 Examination administration incidents log was consulted, and 5 Centres were identified to have potential of compromising the integrity of the examination. The results of the concerned Centres were interrogated for any anomalous performance trends, and it was established that none of them had an unusual performance.

2.2.4.2 Drastic changes in performance

Another validation step involved checking both positive and negative changes in percentage of candidates obtaining Grade C or better across Centres. The results for all Centres with drastic changes were interrogated and the changes were deemed legitimate.

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2.3 Outcomes of Grading

This section reports on outcomes at syllabus and qualification level for government Centres.

2.3.1 Performance at Syllabus Level

2.3.1.1 Quantitative description

Table 2.6 presents performance of the 2022 and 2021 cohorts as reflected by cumulative percentage of candidates at each grade across 16 syllabuses as well as differences in cumulative percentages between the two years. Generally, performance across syllabuses has remained more or less the same between 2021 and 2022.

Table 2.6 : Cumulative Percentages at Syllabus Grade for 2022 and 2021 with Differences

Syllabus	Cumulative % at grade							
	Year	A	B	C	D	E	U	X
Setswana	2022	0.56	5.49	22.58	65.15	89.99	99.95	100
	2021	0.31	5.22	21.50	67.24	89.55	99.95	100
	Diff.	0.25	0.27	1.08	-2.09	0.44	0.00	0
English	2022	0.78	11.47	35.12	62.38	81.46	99.93	100
	2021	1.03	11.21	33.09	60.25	79.88	99.91	100
	Diff.	-0.25	0.26	2.03	2.13	1.58	0.02	0
Mathematics	2022	5.38	12.08	21.91	43.45	74.83	99.97	100
	2021	4.40	11.75	23.42	46.30	79.43	99.96	100
	Diff.	0.98	0.33	-1.51	-2.85	-4.60	0.01	0
Science	2022	2.12	8.24	18.24	47.82	83.37	99.97	100
	2021	2.61	8.09	16.62	44.66	82.32	99.93	100
	Diff.	-0.49	0.15	1.62	3.16	1.05	0.04	0
Social Studies	2022	0.40	6.79	27.54	54.62	78.31	99.95	100
	2021	0.43	6.08	24.73	55.02	80.10	99.95	100
	Diff.	-0.03	0.71	2.81	-0.40	-1.79	0.00	0
Agriculture	2022	0.56	12.40	46.21	76.04	92.30	99.92	100
	2021	1.10	16.04	47.31	80.14	96.12	99.93	100
	Diff.	-0.54	-3.64	-1.10	-4.10	-3.82	-0.01	0
Design and Technology	2022	1.09	4.97	16.12	54.28	82.51	99.97	100
	2021	1.68	6.23	16.29	54.73	83.72	99.70	100
	Diff.	-0.59	-1.26	-0.17	-0.45	-1.21	0.27	0
	2022	0.04	5.38	28.24	71.17	90.67	99.93	100

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Syllabus	Cumulative % at grade							X
	Year	A	B	C	D	E	U	
Home Economics	2021	0.05	3.83	26.95	68.62	90.99	99.70	100
	Diff.	-0.01	1.55	1.29	2.55	-0.32	0.23	0
Commerce and Office Procedures	2022	0.09	1.29	7.73	32.05	68.24	99.90	100
	2021	0.06	1.40	8.92	40.69	76.04	99.58	100
	Diff.	0.03	-0.11	-1.19	-8.64	-7.80	0.32	0
Commerce and Accounting	2022	1.00	9.63	24.82	42.41	66.63	99.78	100
	2021	0.08	4.70	23.47	46.90	74.92	99.29	100
	Diff.	0.92	4.93	1.35	-4.49	-8.29	0.49	0
Religious Education	2022	3.17	16.82	37.36	66.37	87.80	99.96	100
	2021	4.34	16.97	36.44	64.63	85.18	99.79	100
	Diff.	-1.17	-0.15	0.92	1.74	2.62	0.17	0
Art	2022	1.99	22.22	62.31	94.45	98.94	99.98	100
	2021	2.27	22.01	61.00	93.18	99.16	99.65	100
	Diff.	-0.28	0.21	1.31	1.27	-0.22	0.33	0
Moral Education	2022	3.15	15.74	35.83	59.75	77.91	99.96	100
	2021	3.66	16.42	35.35	58.16	77.53	99.95	100
	Diff.	-0.51	-0.68	0.48	1.59	0.38	0.01	0
French	2022	3.14	8.60	15.95	38.20	68.45	100	100
	2021	3.63	8.78	17.14	37.73	67.35	99.52	100
	Diff.	-0.49	-0.18	-1.19	0.47	1.10	0.48	0
Music	2022	0.65	7.57	28.42	65.47	84.56	100	100
	2021	1.56	13.13	36.09	68.11	87.35	99.23	100
	Diff.	-0.91	-5.56	-7.67	-2.64	-2.79	0.77	0
Physical Education	2022	2.94	10.08	21.17	49.44	77.52	99.94	100
	2021	3.52	10.98	24.23	52.77	80.06	99.79	100
	Diff.	-0.58	-0.90	-3.06	-3.33	-2.54	0.15	0

Key Grades Significant: Increase Decline

2.3.1.1.1 Pass grades at syllabus level (Grade E or better)

The proportion of candidates who satisfy the requirements for the award of a syllabus grade remains lower than 90% for almost all the syllabuses with exception of Setswana, Agriculture, Home Economics and Art. This indicates that, in most of the syllabuses, more than 10% of the candidates and as high as 33% for Commerce & Accounting are not awarded a syllabus grade and therefore assigned letter **U**.

2.3.1.1.2 Credit grades at syllabus level (Grade C or better)

It has been observed that it is still only in the Art syllabus where at least 50% of candidates are awarded credit grades, that is grade C or better. It is worrisome that the Commerce & Office Procedures syllabus continues to be the lowest with about 8% of candidates awarded grade C or better. This indicates that very few candidates gain any useful knowledge and skills from the syllabus. BEC will continue to engage with the relevant stakeholders regarding this unsatisfactory performance.

2.3.1.1.3 Changes in performance

This year, the proportion of candidates satisfying the requirements for the award of a key syllabus grade remained more or less the same as that of last year for 7 syllabuses and only changed significantly in 9 syllabuses. It is worth noting that 6 of these significant changes are in the negative with a positive change in 3 syllabuses. The syllabuses showing a positive significant change in performance at one of the key grades are English, Social Studies and Religious Education.

The core syllabuses showing a significant decline in cumulative percentage of candidates at one of the key grades are Agriculture and Mathematics whereas the rest are small entry optional syllabuses. The significant decline in cumulative percentages for the 6 syllabuses is noted at grade E or better while for 2 syllabuses the significant decline is also noted at C or better.

Important to note is that the majority of syllabuses with a significant decline in cumulative percentage in any of the key grades have a coursework component. This could be an indication that the 2022 cohort did not gain from the benefit that usually comes with coursework. Coursework assessments give candidates an opportunity to be assisted throughout its administration thereby optimising acquisition of knowledge and skills resulting in better performance in the syllabus.

2.3.1.2 Qualitative description

The description is meant to give a synopsis on the quality of candidates work for the syllabuses showing significant decline in performance in at least one of the key grades.

Mathematics: The 2022 candidates demonstrated some knowledge and understanding of mathematical concepts in basic classification of numbers but could not to some extent estimate, approximate and use appropriate degrees of accuracy in their work as compared to the previous year. Most of the candidates were finding application of some real-life problems a challenge as they could not recognize, understand, and apply appropriate mathematical procedures in a given situation at their level.

Music: The 2022 cohort struggled to demonstrate their ability to recall and understand information on music traditions, terminology and notation. Their mastery of music vocabulary for providing definitions of musical terms and musical concepts was generally weaker, which was an unexpected scenario

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given the cognitive simplicity of such tasks. This general weakness was also observed in notational questions and music analysis.

Agriculture: In general, 2022 candidates were limited in recalling a wide range of agricultural concepts and facts. In addition, a good number of candidates could not adequately expand on these concepts and facts. The candidates could not articulate themselves very well on questions seeking knowledge and understanding. Their responses on application questions were very shallow and lacked clarity reflecting inadequate acquisition of practical skills. Furthermore, their analysis on agricultural concepts were also lacking compared to the previous year's candidates.

Physical Education: The 2022 cohort, unlike in 2021 had a limited understanding and ability to expand various Physical Education concepts and facts. The candidates were limited in interpreting diagrams and could not adequately handle given information to solve problems. The candidates' responses on application items were weak and they lacked clarity.

Commerce and Office Procedures: The 2022 cohort displayed a weaker performance as compared to the previous year. They were expected as usual to identify business facts, relate concepts and techniques in a logical manner, select and organise business information in an orderly manner which was a challenge to the majority. They were mostly challenged with the development of business ideas and operating a business. Most candidates were confusing concepts and displayed a low level of understanding as they misinterpreted some tasks. They were also challenged when expected to perform simple business calculations.

Commerce and Accounting: The 2022 cohort displayed weaker ability compared to the previous cohort. They were expected to relate facts and concepts in a logical manner and to apply knowledge and understanding of business concepts to real-life situations. They could not properly explain the concepts as some only listed the points. The 2022 cohort showed limitations in applying business concepts to perform simple business calculations as compared to their counterparts. They were also struggling to select and classify simple business information and those few who were able to select the information wrongly classified it.

What is evident is that this year, candidates were a lot more challenged in skill-based syllabuses. This could be suggestive of the fact that they had not acquired the requisite knowledge and skills.

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2.4 Performance at Qualification Level

The overall performance of the 2022 cohort has remained more or less the same as that of the 2021 cohort.

Table 2.7 shows the number of candidates at each qualification grade, percentage at grade, cumulative percentage at grade and the difference in cumulative percentages at a grade between 2022 and 2021.

Table 2.7: Performance at Qualification Level

Year Frequency		Merit	A	B	C	D	E	U	X
2022	No.at grade	7	488	4152	10639	14696	5694	5819	1420
	% at grade	0.00	1.20	10.00	25.60	35.40	13.70	14.00	3.31
	Cum. %	0.00	1.20	11.20	36.80	72.30	86.00	96.70	100
2021	No.at grade	14	541	4170	10269	14738	5757	6534	353
	% at grade	0.00	1.30	9.90	24.40	35.10	13.70	15.50	0.83
	Cum. %	0.00	1.30	11.20	35.70	70.80	84.50	99.17	100
Diff. in cum. %		0.00	-0.10	0.00	1.10	1.50	1.50	-2.47	0

This year, the overall pass rate at qualification level (Grade E or better) stands at **86.00%**, of which **36.80%** are credit grades (Grade C or better). This is in comparison with the overall pass rate of **84.50%** and **35.70%** credit grades in 2021 which indicates an insignificant improvement of **1.50%** in the overall pass rate and an insignificant improvement of **1.10%** in the credit grades. The slight improvement might be indicating that the system is slowly recovering from the impact of the COVID-19 pandemic.

Further to note is that **14.00%** of candidates compared to **15.50%** of the previous year, will be assigned letter **U**.

2.4.1 Outstanding Performance

The attainment of a Merit is classified as outstanding performance. The requirement for a Merit, is to obtain at least 7 grade A's at syllabus level following prescribed criteria. In this series, 7 candidates from 7 different Centres across regions qualify for the award of a Merit compared to 14 candidates from 13 different Centres in the previous year. Of the 7 candidates qualifying for the award of a Merit, only 1 candidate obtained grade A in all their 9 syllabuses compared to 5 candidates in the previous year.

PART III RESULTS ANALYSIS

Part III of the 2022 JCE Summary Results Report is structured as follows: -

- Candidature
- Overall Performance
- Performance by Subject
- Performance by Gender
- Performance by Education Region
- Centres obtaining at least 50% pass for grades A-C
- Report Summary

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3.0 Candidature

The total candidature in 2022 was 46 835, which is an increase of **1.3%** from 2021 total candidature of 46 232. The distribution of candidature by gender shows that among 46 835 who sat for the 2022 examinations, 23 837 (50.9%) were females and 22 998 (49.1%) were males.

The general picture shown in Table 3.1 is that female candidates outnumber their male counterparts in all subjects across the years except for Design and Technology, Art and Physical Education. However, the difference in the number of males and female is consistent from year 2020 to 2022 and is not expected to change the gender composition of the candidature, hence the results are not expected to be biased by gender differences.

Table 3.1: Candidature by Subjects, Gender and Year of Examination (2020 – 2022)

SUBJECTS	2020			2021			2022		
	All	Male	Female	All	Male	Female	All	Male	Female
Setswana	43360	21441	21919	45097	22074	23023	45578	22451	23127
English	43739	21622	22117	45852	22448	23404	46378	22831	23547
Mathematics	43804	21634	22170	46022	22492	23530	46635	22887	23748
General Science	3170	1490	1680	3650	1728	1922	3739	1768	1971
Integrated Science	40620	20144	20476	42373	20747	21626	42917	21127	21790
Social Studies	43267	21409	21858	45173	22091	23082	45614	22419	23195
Design & Technology	11620	9689	1931	12114	10152	1962	12244	10368	1876
Agriculture	42977	21229	21748	44658	21834	22824	44905	22104	22801
Home Economics	11685	2797	8888	12343	2827	9516	12389	2781	9608
Commerce and Office Procedure	9366	4042	5324	8754	3765	4989	8565	3652	4913
Commerce and Accounting	8664	3809	4855	9501	4002	5499	9799	4167	5632
Religious Education	16653	5499	11154	17024	5374	11650	16906	5274	11632
Art	11515	8204	3311	12096	8547	3549	12246	8745	3501
Moral Education	43240	21374	21866	45069	22034	23034	45459	22339	23120
French	1656	599	1057	1670	590	1080	1699	618	1081
Music	1621	725	896	1681	794	887	1703	806	897
Physical Education	12351	6688	5663	12827	6900	5927	12883	6998	5885
TOTAL CANDIDATURE	43883	21683	22200	46232	22603	23629	46835	22998	23837

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3.1 Overall Performance

The analysis in this section is based on all candidature who sat for examinations in all types of Centres in year 2020, 2021 and 2022: Government or Public School Centres, Private School centers and Private Centre Candidates.

Table 3.2: National summary of overall grades from 2020 to 2022

Note: X denotes failure to meet grading requirements for the award of a qualification
U denotes failure to meet minimum requirements at grade E

Grade	2020			2021			2022		
	Count	%	Cum	Count	%	Cum%	Count	%	Cum%
Merit	11	0.03	0.03	14	0.03	0.03	7	0.01	0.01
A	485	1.11	1.14	543	1.17	1.20	488	1.04	1.05
B	4187	9.54	10.68	4176	9.03	10.23	4152	8.87	9.92
C	9865	22.48	33.16	10322	22.33	32.56	10681	22.81	32.73
D	14924	34.01	67.17	15367	33.24	65.80	15234	32.53	65.26
E	5947	13.55	80.72	6112	13.22	79.02	6014	12.84	78.10
U	6626	15.10	95.82	6744	14.59	93.61	7368	15.73	93.83
X	1838	4.19	100.00	2955	6.39	100.00	2891	6.17	100.00
Total	43883			46232			46835		

Table 3.2 shows the count, percentages and cumulative percentages of candidates awarded overall grades A, B, C, D and E. The table also shows the statistics for candidates who did not meet grading requirements denoted by X, as well as those who failed to meet the requirements of Grade E, assigned U. The proportion of candidates who failed to meet the requirements of the award of qualification was 6.17%, which was a minor decrease of 0.22% from the previous year. The overall pass rate (grade E or better), stood at 78.10% in 2022 compared to 79.02% in 2021 signifying a decline in performance of 0.92% between 2022 and 2021. The cumulative percentage of candidates awarded grade E or better was 80.72% in 2020 which represented a further decline of 2.62% between 2020 and 2022. The overall trend of this statistics shows a decline in learners' performance between 2020 and 2022. The credit pass rate (grade C or better) is 32.73% in 2022 compared to 32.56% in 2021 showing a slight improvement of 0.17%. There was a decline in performance for all overall grades Merit, A, B, D and E between 2021 and 2022 except for grade C which registered a slight improvement when compared to the previous year. The cumulative percentages of these grades were

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lower in 2022 compared to 2021. On the other hand, seven (7) candidates managed to reach an outstanding performance level, as they were awarded a Merit grade. However, this is a drop from 14 Merit grades realized in 2021.

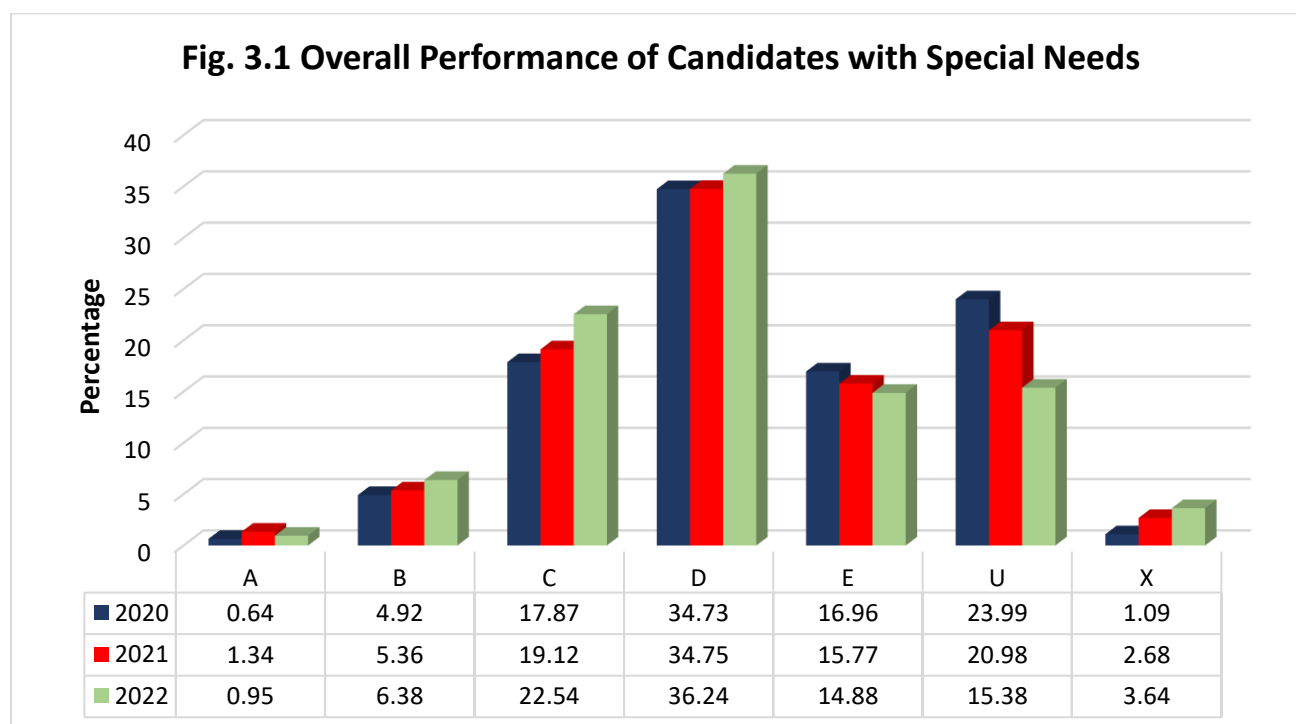
3.1.1 Performance by Special Needs Candidates

Table 3.3: Categories of Special Needs

SPECIAL NEEDS TYPE	NUMBER OF CANDIDATES	PERCENTAGE
Learning Disability	1542	86.24
Physical Disability	10	0.56
Hearing Impairment	42	2.35
Visual Impairment	67	3.75
Medical Condition	67	3.75
Multiple Disabilities	56	3.13
Other	4	0,22
Total	1788	100,00

Table 3.3 shows the type of special needs by candidates in the 2022 examination. The major disability is Learning Disability at 86.24% while the rest are below 5%. The Learning Disability category is varied containing learners with dyslexia, dysgraphia, intellectually challenged etc.

Figure 3.1: Overall Performance of Candidates with Special Needs



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Figure 3.1 presents overall performance of candidates with special needs for the years 2020, 2021 and 2022. The candidates' modal grade is D followed by unclassified U for the three years. The overall pass rate (A-E) has been increasing for the past three years with 2022 recording a pass rate of 80.99% which is an increase of 4.65% from 2021 (76.34%). The Credit pass (A-C) is at 29.87% in 2022 which is an increase of 4.05% from 2021 (25.82%). In 2022, grade A was attained by 0.95% of the candidates which is a decrease of 0.39% from 2021.

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Figure 3.2: Performance by Special Need Type

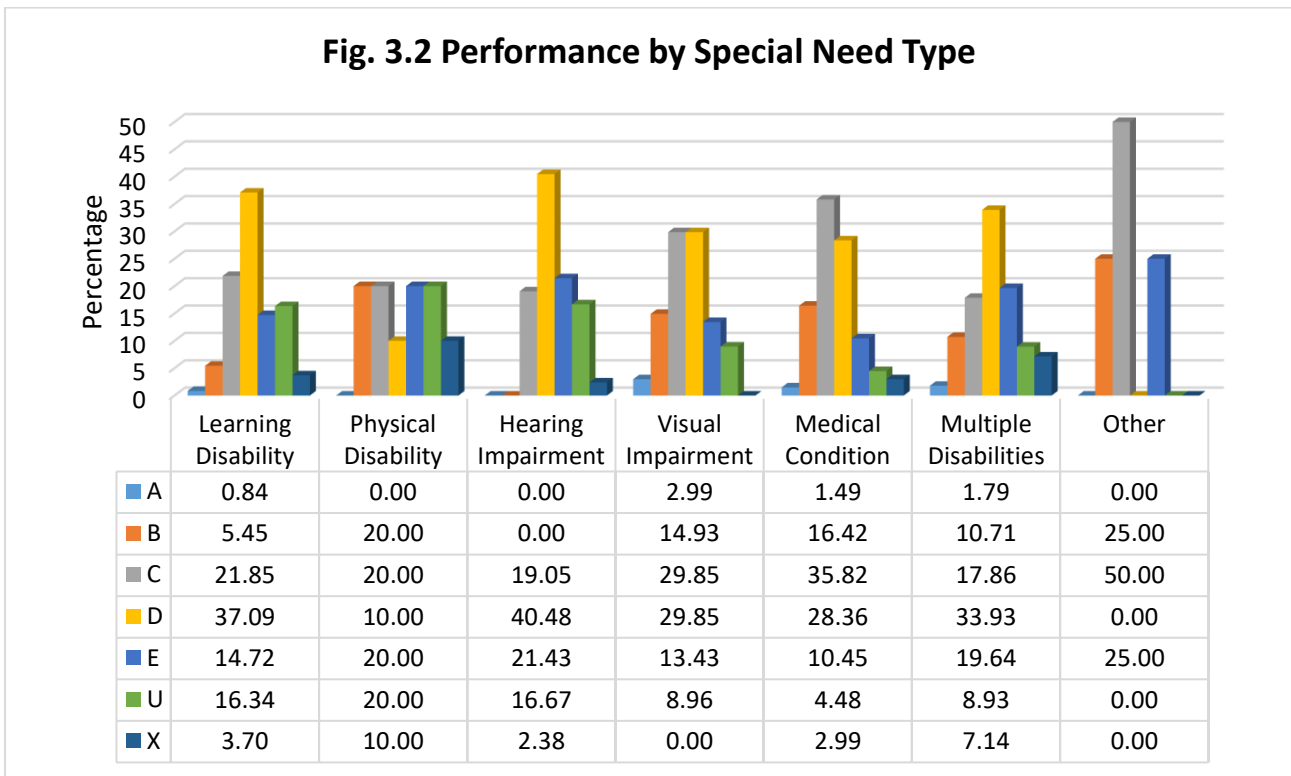


Figure 3.2 presents performance of candidates by type of special need. The graph shows that Learning Disability, Visual Impairment, Medical Condition and Multiple Disabilities have candidates who managed to obtain grade A at 0.84%, 2.99%, 1.49% and 1.79% respectively. The special need types with A-C percentage pass of 30% or more are Other disabilities at 75.00%, followed by Medical Condition at 53.73%, Visual Impairment at 47.77%, Physical Disability at 40.00% and Multiple Disabilities (30.36%). Hearing Impairment has the largest proportion of candidates at grade D while Physical Disability has the highest proportion of candidates assigned U.

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3.2 Performance by Subject

Table 3.4 shows cumulative percentages of candidates awarded grade C or better and grade E or better across subjects in 2020, 2021 and 2022. In Table 3.4, it is evident that performance in Art had been higher than 60% across years in grade category of C or better. It is also evident that the changes in performance within subjects on grade C or better had been small in most of subjects across years. The small changes around 2% shows that the cohort of candidates had been comparable across years which is highly expected owing to the large number of populations taking the examination every year. However, it worth noting that in some subjects like Music and Physical Education, experienced a larger negative difference above 2% in Grade category C or better, which signify a drop in performance between 2021 and 2022. In category E or better a large negative difference in performance between 2021 and 2022 was observed in Mathematics, Agriculture, Commerce and Office Procedure, Commerce and Accounting. The large positive change in this category was observed in Religious Education and General Science.

Table 3.4: Percentages of All candidates awarded Grade E or better and C or better by subject in 2020, 2021 and 2022

	Grade C or better				Grade E or better			
	2020 (%)	2021 (%)	2022 (%)	% Difference (2021/2022)	2020 (%)	2021 (%)	2022 (%)	% Difference (2021/2022)
SETSWANA	21.94	20.28	21.35	1.07	88.54	88.89	89.14	0.95
ENGLISH	30.13	31.12	33.00	1.88	77.50	79.04	80.80	1.76
MATHEMATICS	21.94	21.91	20.66	-1.25	77.05	78.26	73.89	-4.37
INTEGRATED SCIENCE	18.04	16.61	18.25	1.64	82.98	82.27	83.38	1.11
SOCIAL STUDIES	27.72	23.29	26.06	2.77	79.72	79.23	77.73	-1.50
AGRICULTURE	45.15	45.32	44.72	-0.60	94.37	94.77	91.60	-3.17
DESIGN & TECHNOLOGY	15.68	16.25	16.13	-0.12	82.57	83.48	82.52	-0.96
HOME ECONOMICS	27.06	26.87	28.24	1.37	91.81	90.71	90.67	-0.04
COMMERCE & OFFICE PROCEDURES	9.10	8.01	7.12	-0.89	69.08	71.58	66.59	-4.99
COMMERCE & ACCOUNTING	20.88	22.38	24.02	1.64	74.37	72.39	65.38	-7.01
RELIGIOUS EDUCATION	31.86	32.99	34.84	1.85	85.67	82.82	86.70	3.88
ART	63.26	60.79	62.31	1.52	99.12	98.82	98.93	0.11
GENERAL SCIENCE	1.83	2.77	2.56	-0.21	49.08	57.32	60.54	3.22
MORAL EDUCATION	34.76	33.64	34.33	0.69	74.76	76.89	77.48	0.59
FRENCH	15.40	16.95	15.95	-1	67.03	66.89	68.21	1.32
MUSIC	30.35	35.81	28.43	-7.38	86.62	86.68	84.56	-2.12
PHYSICAL EDUCATION	21.75	24.18	21.16	-3.02	79.85	79.90	77.48	-2.42

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3.2.1 Performance in Core Subjects

Figure 3.3: Percentage of Candidates at Each Grade in Core Subjects

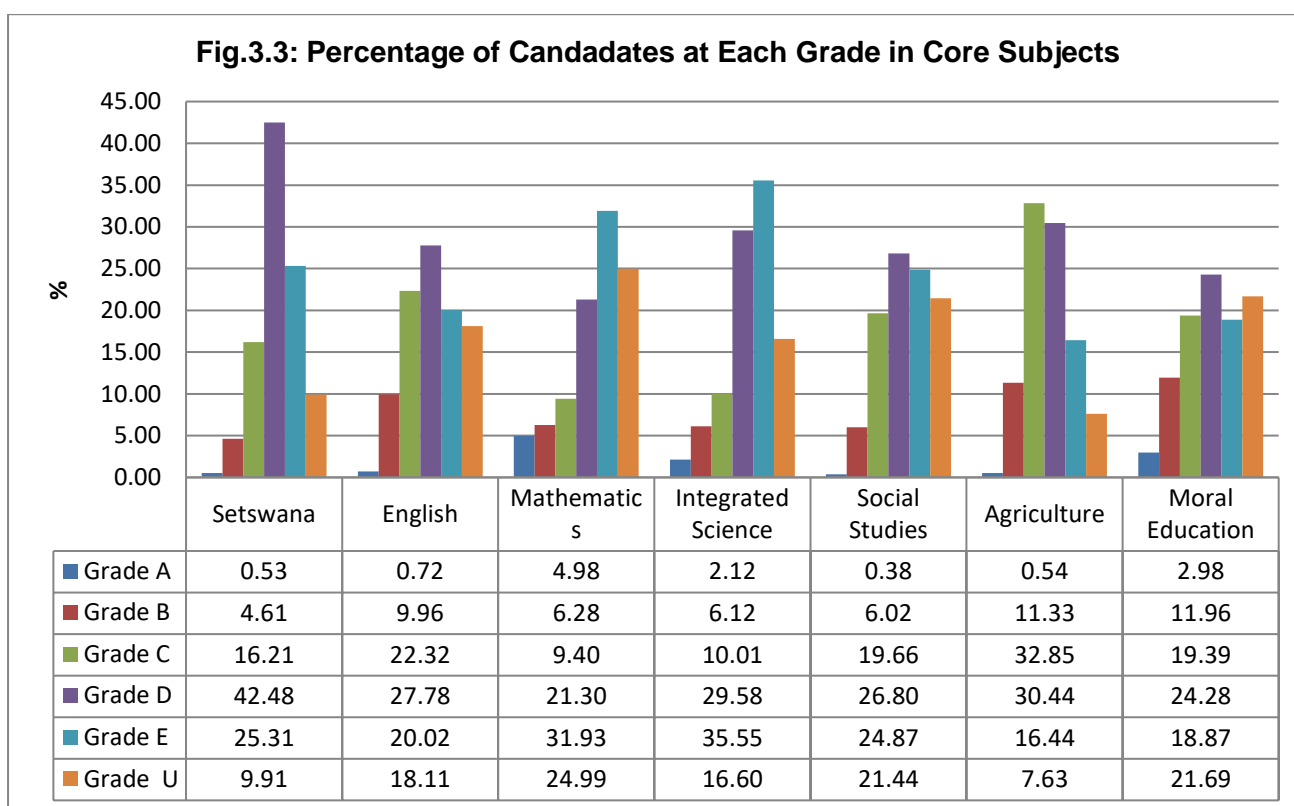


Figure 3.3 presents proportion of candidates at each grade across core subjects. Mathematics has the highest proportion of candidates at grade A (4.98%) compared to other subjects while Social Studies has the least with 0.38% compared to other subjects. Moral Education has the highest proportion of candidates at grade B of 11.96% and Agriculture has the highest proportion at Grade C (32.85%) and Grade D (30.44%) while Integrated Science has the highest proportion at grade E of 35.55%. Most of the subjects have grade D as the modal grade, apart from Mathematics and Integrated Science with the mode at grade E. The performance distribution depicted at each level shows an indication that large proportion of candidates obtain lower grades. This signifies low performance in core subjects which are taken by all candidates.

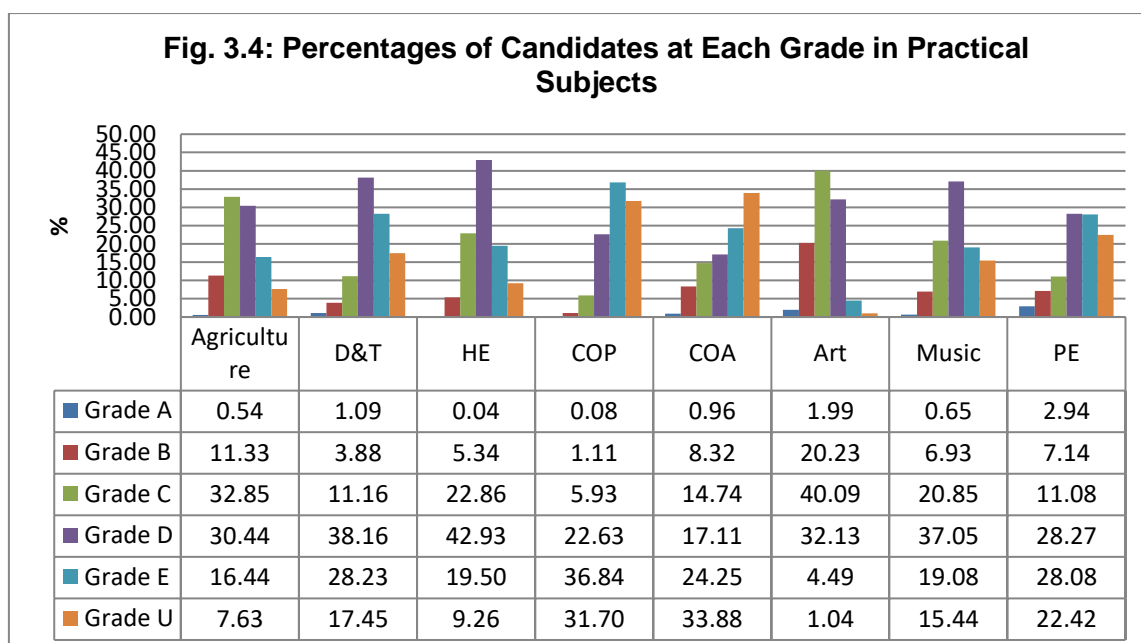


Figure 3.4 presents proportions of candidates at each grade for practical subjects. The distribution of candidates across grades has varying peak across subjects. Only Art and Agriculture have more candidates awarded grade C compared to other grades. Most subject have their modal performance at grade D: Design & Technology, Home Economic, Music and Physical Education. Commerce and Office Procedure has modal performance at grade E and Commerce and Account has modal performance at grade U.

3.3: Performance by Gender

Fig:3.5: Percentages of Candidates at each Grade by Gender

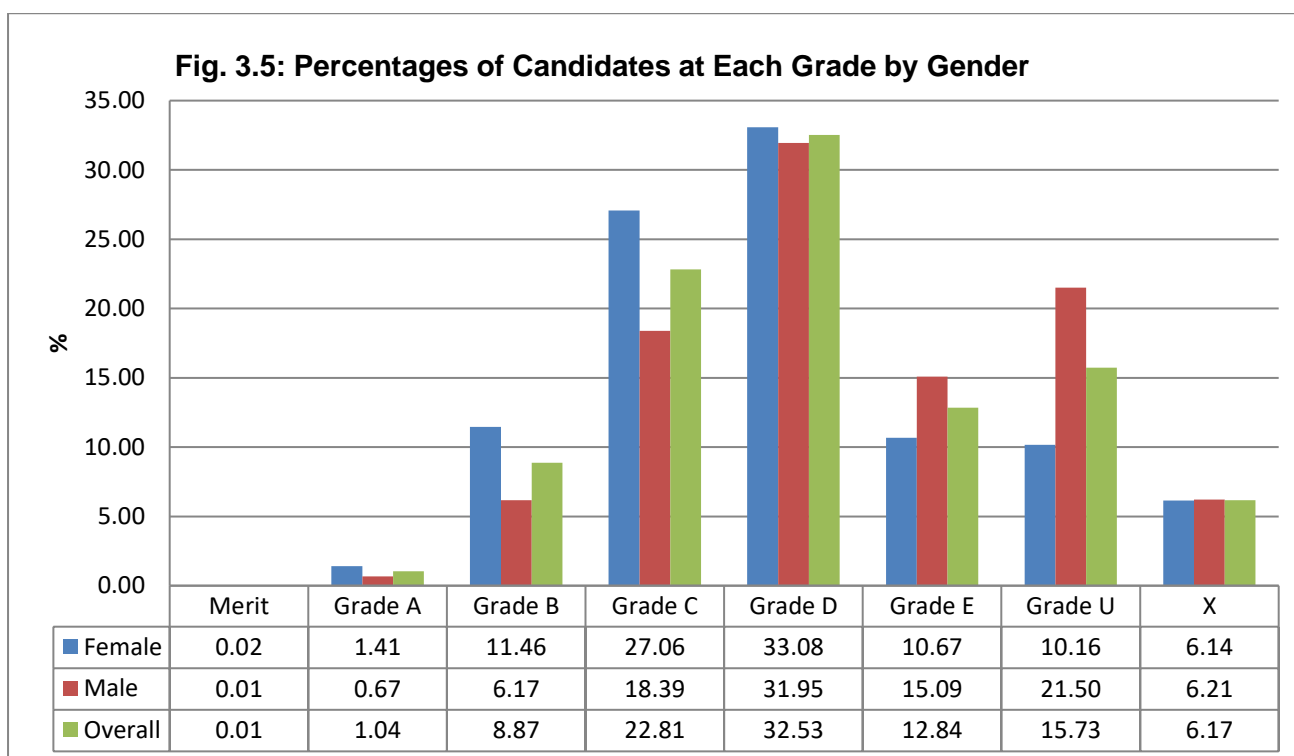


Figure 3.5 shows percentage of candidates at each overall grade by gender. Gender differentials are more evident at grades A, B and C, where females out-perform their male counterparts. In fact, grades B and C present bigger margins between females and males. For instance, 11.46% of females obtained grade B compared to 6.17% for males, while for grade C females are at 27.06% and males are at 18.39%, a difference of 5.29% and 8.67% respectively. The performance at grade D is almost similar with just 1.12% difference in favour of females. The males have a greater proportion of candidates' awarded grade E and U compared to females.

Table 3.5: Percentage of Female candidates at each grade by subject in 2020, 2021 and 2022

	A			B			C			D			E			U		
	2020	2021	2022	2020	2021	2022	2020	2021	2022	2020	2021	2022	2020	2021	2022	2020	2021	2022
Setswana	0.38	0.47	0.85	6.20	6.88	7.26	24.96	20.83	22.69	49.07	49.57	45.94	13.29	16.28	17.80	4.69	4.78	4.58
English	1.32	1.53	1.09	12.43	13.35	13.97	25.02	25.70	27.38	28.79	29.04	29.09	18.37	17.56	17.00	12.66	11.44	10.41
Mathematics	4.94	4.78	5.90	7.22	8.09	7.45	13.94	12.47	10.96	23.19	24.38	24.15	33.14	33.96	32.29	16.08	15.00	18.16
Integrated Science	2.69	2.60	2.28	6.55	5.88	7.12	9.88	9.52	11.22	30.17	30.86	33.01	38.74	38.62	35.82	11.91	12.49	10.53
Social Studies	0.60	0.52	0.49	10.40	6.59	7.74	22.34	19.97	23.43	29.74	31.77	29.22	23.32	26.14	24.14	12.41	13.90	14.15
Agriculture	1.59	1.18	0.69	17.88	16.01	13.83	32.02	32.57	35.82	31.95	33.89	30.67	13.34	13.08	14.10	2.10	2.17	4.18
Design and Technology	1.24	1.43	0.85	4.25	3.52	3.36	10.41	9.17	9.70	41.90	41.08	41.42	31.33	32.21	32.46	10.88	12.39	12.21
Home Economics	0.12	0.05	0.05	5.13	4.56	6.41	26.36	26.60	26.17	44.86	43.61	45.46	18.71	19.98	16.65	4.73	5.01	5.20
Commerce and Office Procedures	0.08	0.10	0.10	2.10	1.62	1.49	9.75	8.76	7.67	30.63	33.49	26.54	34.13	36.84	38.18	21.15	16.80	24.49
Commerce and Accounting	0.10	0.07	1.03	4.78	5.36	10.32	20.23	21.08	16.96	27.02	25.86	19.28	29.41	28.46	25.50	17.73	17.82	26.26
Religious Education	4.55	4.74	3.43	14.87	13.27	14.70	18.06	20.33	21.35	31.64	28.77	30.01	21.20	20.51	21.31	7.51	10.55	8.17
Art	2.33	2.28	2.20	22.38	22.43	24.48	42.65	42.63	43.36	27.76	28.32	26.48	4.56	3.63	3.14	0.33	0.45	0.34
General Science	0.00	0.26	0.00	0.18	0.10	0.30	0.95	1.56	1.37	6.43	11.13	11.92	36.55	40.89	43.78	33.63	25.81	25.77
Moral Education	4.53	4.69	4.12	15.61	15.29	16.38	23.13	21.05	23.52	24.56	24.50	24.68	15.30	19.00	16.94	15.70	14.40	13.59
French	3.60	4.54	3.70	5.96	6.57	7.40	9.74	9.81	8.33	28.76	23.89	25.99	31.13	33.61	32.19	20.44	21.02	22.29
Music	0.89	1.92	0.89	9.71	14.99	9.25	27.79	27.85	26.76	39.84	33.37	38.35	14.40	15.56	17.39	7.37	5.41	7.36
Physical Education	2.10	3.78	3.04	7.42	7.76	8.11	14.74	14.48	12.29	33.69	29.39	30.98	27.65	28.68	29.72	14.22	15.83	15.84

Table 3.5 depicts performance of females over a three-year period (2020 – 2022). Across the three years, the proportions at each grade have been somewhat consistent. It is evident from the table that most female candidates were awarded grade C or grade D in all years across subjects. Proportions of candidates awarded grade C and grade D ranges from around 20% to above 40% in most subjects. The general picture between 2021 and 2022 shows an insignificant decline in performance across grades and within subjects. English has depicted an upward trajectory on performance for Grade A, B, C and D but downward trajectory for grade E and U. Most subjects show some fluctuating trajectory within 3 years being compared.

Table 3.6: Percentage of Male candidates at each grade by subject in 2020, 2021 and 2022

Subject	A			B			C			D			E			U		
	2020	2021	2022	2020	2021	2022	2020	2021	2022	2020	2021	2022	2020	2021	2022	2020	2021	2022
Setswana	0.11	0.10	0.20	1.51	2.22	1.89	10.52	9.72	9.54	44.41	41.21	38.92	26.52	29.18	33.05	15.68	16.31	15.41
English	0.44	0.36	0.35	5.32	5.35	5.81	15.53	15.56	17.10	24.76	26.27	26.43	22.80	23.04	23.14	29.88	28.01	26.04
Mathematics	3.48	3.33	4.02	4.94	5.52	5.07	9.26	9.47	7.79	18.08	20.52	18.35	35.77	33.75	31.56	27.16	26.07	32.08
Integrated Science	2.97	2.62	1.95	5.61	5.05	5.09	8.34	7.49	8.76	25.26	25.06	26.04	35.63	36.62	35.27	22.16	23.06	22.86
Social Studies	0.30	0.27	0.26	5.75	3.98	4.24	15.93	15.06	15.75	27.08	27.55	24.29	23.86	26.33	25.62	25.90	25.03	28.98
Agriculture	0.84	0.91	0.38	11.89	12.29	8.75	25.93	27.48	29.80	32.04	32.15	30.20	21.23	19.88	18.84	7.03	6.32	11.20
Design and Technology	1.40	1.72	1.13	4.72	4.73	3.97	9.52	10.20	11.42	36.76	37.79	37.57	28.86	28.27	27.47	18.69	16.97	18.40
Home Economics	0.07	0.04	0.00	1.25	1.10	1.65	11.26	11.14	11.43	36.54	34.56	34.16	31.96	3.14	29.34	18.91	22.36	23.27
Commerce & Office Procedures	0.02	0.00	0.05	0.96	0.64	0.60	4.38	4.09	3.59	21.92	22.12	17.36	31.79	32.48	35.02	38.03	37.45	41.40
Commerce and Accounting	0.08	0.07	0.86	2.60	3.10	5.62	12.81	13.52	11.74	18.48	17.67	14.18	31.24	26.41	22.56	33.89	37.21	44.18
Religious Education	2.00	2.07	1.82	7.18	7.22	8.13	11.26	12.10	14.64	27.97	24.56	26.73	27.82	26.46	26.30	19.79	24.13	20.48
Art	2.19	2.26	1.91	19.98	18.52	18.52	39.43	37.29	38.79	30.22	33.63	34.40	7.07	6.93	5.03	1.00	0.99	1.32
General Science	0.00	0.06	0.00	0.60	0.52	0.62	2.01	3.13	2.94	12.82	19.50	17.82	39.26	37.85	42.70	22.68	17.77	18.44
Moral Education	2.04	2.14	1.79	8.15	8.64	7.39	15.87	15.13	15.11	22.19	21.69	23.86	17.95	21.29	20.86	32.75	30.10	30.07
French	1.17	1.86	2.10	3.84	2.37	2.10	3.51	5.42	5.66	12.69	13.90	15.21	24.37	22.20	26.70	54.26	53.22	48.06
Music	0.41	1.13	0.37	5.93	7.56	4.34	14.07	17.13	14.27	32.83	29.97	35.61	25.93	23.05	20.97	20.83	20.53	24.44
Physical Education	1.76	3.28	2.86	5.91	7.17	6.33	11.95	12.14	10.07	28.51	27.70	25.99	26.84	26.00	26.71	24.96	23.39	27.95

Table 3.6 presents performance by males over a three-year period (2020-2022) at each grade. There are more males obtaining grade A, B and C in Art compared to other subjects; the trend is consistent for the past three (3) years. Both males and females are clustered in grade C and D. It is evident that fewer males obtained Grade A or B in all subjects across years. Art is the only subject which had a high proportion of grade C, more than 30% across the 3 years. Agriculture shown an upward trajectory in grade C across three years. The males recorded the highest proportion of candidates assigned U, above 40% in French (48.06%), Commerce & Accounting (44.18%), and Commerce and Office procedure (41.40%).

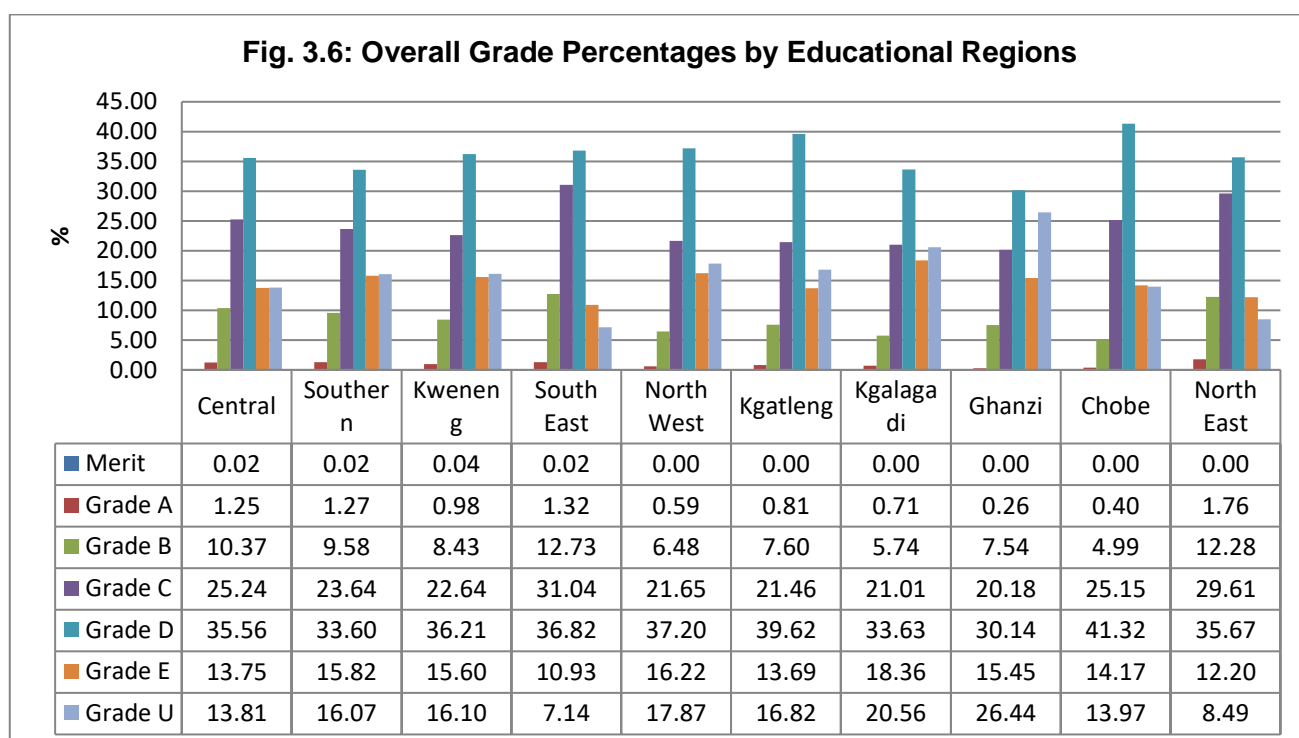


Figure 3.6 shows the regional differences in candidates' performance. Central, Southern, Kweneng, and South East regions have each recorded at least a merit pass. North East region is leading in percentage of candidates awarded grades A (1.76%). South East has larger proportion of candidates awarded grade B and grade C with 12.73% and 31.04%, respectively. Chobe region leads in grade D and Kgalagadi region leads in grade E.

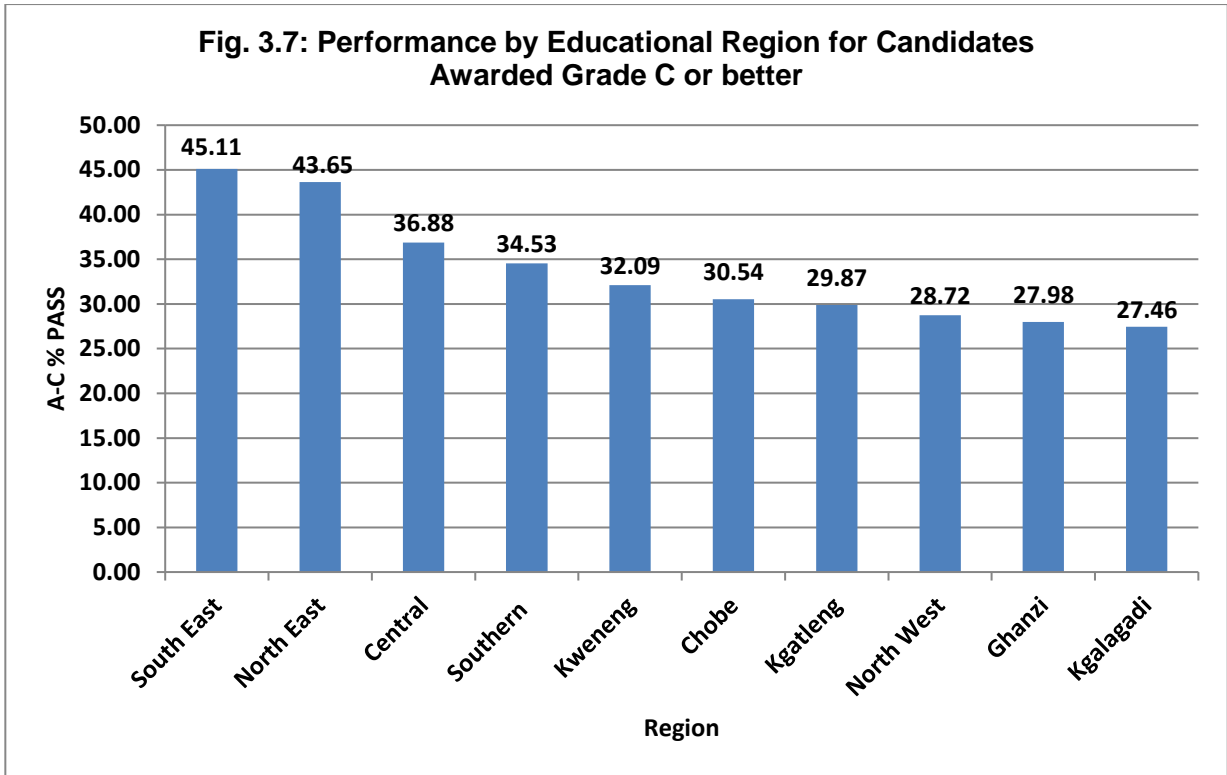


Figure 3.7 depicts performance at grade C or better by regions. The highest performing region at grade C or better is South East (45.11%) followed by North East (43.65%) while the least performing regions are Ghanzi and Kgalagadi at 27.98% and 27.46%, respectively.

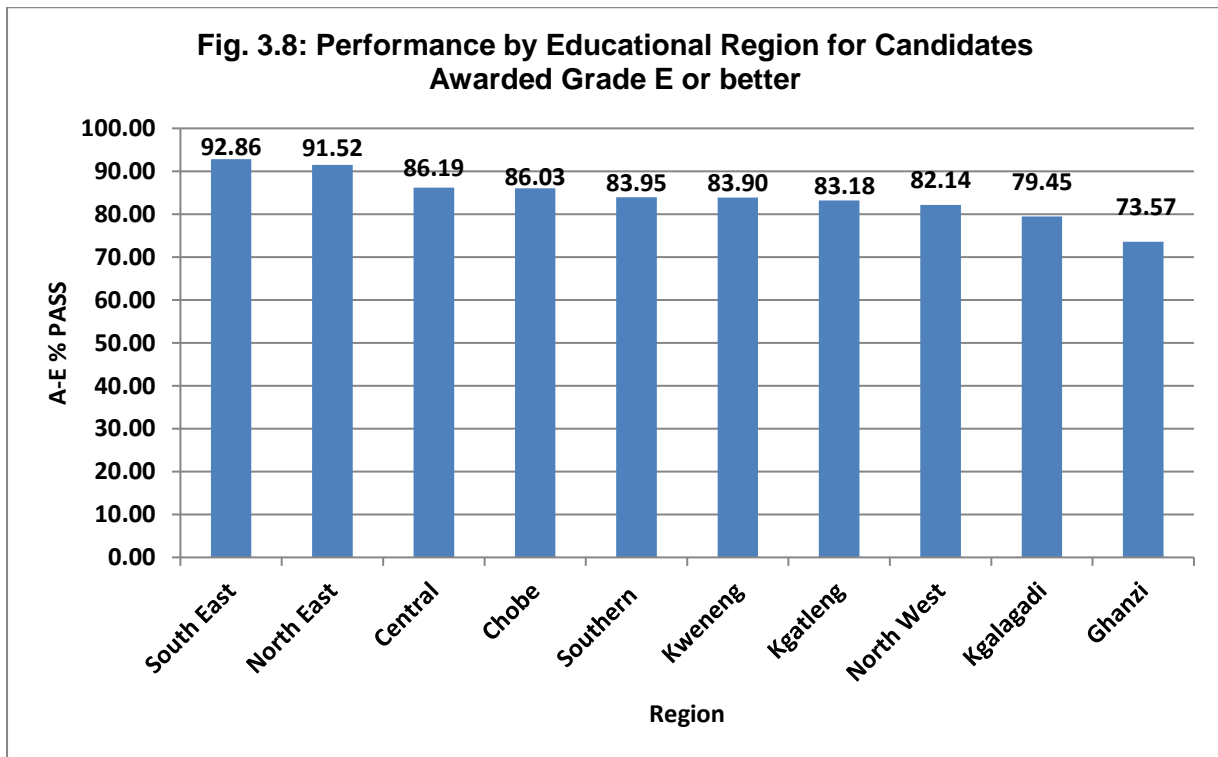


Figure 3.8 depicts performance of regions at grade E or better. South East and North East continue to be the highest performing regions even at grade E or better with a pass of 92.86% and 91.52%

respectively. At grade E or better, Ghanzi is the least performing region (73.57%) followed by Kgalagadi (79.45%).

Table 3.7: JCE Centres obtaining 50% or more of grades A-C by region in 2021 and 2022

	Region	Centre	Percentage (2021)	Percentage (2022)	Difference (2021/2022)
1	Central	JC0618 Precious Cornerstone Junior Secondary School		80.0	
2	Central	JC0060 Meepong Junior Secondary School	76.4	72.7	-3.7
3	South East	JC0183 Bonnington Junior Secondary School	69.2	68.3	-0.9
4	Central	JC0201 Phatsimo Junior Secondary School	66.7	67.3	0.6
5	Central	JC0095 Orapa Junior Secondary School	76.4	66.2	-10.2
6	Central	JC0108 Makhubu Junior Secondary School	67.3	64.7	-2.6
7	South East	JC0167 Moselewapula Junior Secondary School	57.7	64.6	6.9
8	North East	JC0020 Setlalekgosi Junior Secondary School	67.1	63.1	-4.0
9	Central	JC0018 Lebogang Junior Secondary School	65.6	61.0	-4.6
10	South East	JC0182 Tlogatloga Junior Secondary School	62.7	60.7	-2.0
11	Central	JC0120 Boikhutso Junior Secondary School	51.1	59.8	8.7
12	South East	JC0116 Nanogang Junior Secondary School	66.1	59.7	-6.4
13	Central	JC0068 Shoshong Junior Secondary School		58.6	
14	North East	JC0030 Montsamaisa Junior Secondary School	58.3	58.3	0.0
15	Southern	JC0184 Kgosi Mpe Junior Secondary School	55.5	58.3	2.8
16	Kweneng	JC0127 Dithejwane Junior Secondary School	55.7	55.7	0.0
17	South East	JC0034 Motswedi Junior Secondary School	52.9	55.1	2.2
18	Central	JC0200 Mojamorago Junior Secondary School	54.4	54.5	0.1
19	Southern	JC0004 Itireleng Junior Secondary School	60.0	54.4	-5.6
20	Central	JC0011 Gosemama Junior Secondary School	50.0	53.6	3.6
21	Southern	JC0187 Pitikwe Junior Secondary School		53.0	
22	South East	JC0050 Maaka Junior Secondary School	57.6	51.7	-5.9
23	Central	JC0133 Kgalemang Motsete Junior Secondary School	52.9	51.6	-1.3
24	North East	JC0118 Donga Junior Secondary School	50.6	51.3	0.7
25	Central	JC0109 Mmaphula Junior Secondary School		51.2	
26	Central	JC0027 Palapye Junior Secondary School	50.4	50.9	0.5
27	Central	JC0088 Denjebuya Junior Secondary School		50.7	
28	South East	JC0180 Kgale Hill Junior Secondary School	59.7	50.7	-9.0
29	Kgatleng	JC0006 Linchwe II Junior Secondary School		50.6	
	Central	JC0012 Mannathoko Junior Secondary School	59.0		
	South East	JC0033 Mattlala Junior Secondary School	50.4		
	North East	JC0054 Batanani Junior Secondary School	50.3		
	Central	JC0058 Metsimasweu Junior Secondary School	50.9		
	North East	JC0074 Zwenshambe Junior Secondary School	50.9		
	North East	JC0083 Thamani Junior Secondary School	55.7		
	North East	JC0089 Madawu Junior Secondary School	62.5		

Region	Centre	Percentage (2021)	Percentage (2022)	Difference (2021/2022)
North East	JC0092 Mmei Junior Secondary School	53.0		
North East	JC0117 Goldmine Junior Secondary School	53.5		
Kgatlang	JC0134 Sedimo Hill Junior Secondary School	54.2		
North East	JC0146 Maenjane Junior Secondary School	53.2		
Central	JC0153 Pekenene Junior Secondary School	50.2		
South East	JC0179 Sir Seretse Khama Junior Secondary School	57.0		
North East	JC0216 Tadabigwa Junior Secondary School	51.1		

Table 3.7 presents a list of centres obtaining at least 50% of grades C or better in 2022, compared to 2021. Twenty-nine (29) centres managed to obtain a 50% or more pass rate on A-C grades compared to thirty-seven (37), a decrease by eight (8) centres from 2021. These centres are from five regions, namely Central, South East, Southern, North East, Kgatlang and Kweneng, even though the latter region has only one centre. Out of these 29 centres, 23 centres maintained from 2021 while only 6 centres are new in the list this year. From the twenty-three (23) centres that maintained a pass of 50% or more, ten (10) have recorded a notable (significant) decrease in performance as compared to the previous year. Conversely, five (5) centres have recorded significant increase, with Moselewapula JSS and Boikhutso JSS recording the highest increases of 6.9% and 8.7%, respectively.

Table 3.8: *Outstanding Performance*

REGION	SCHOOL
Central	JC0201 Phatsimo Junior Secondary School
	JC0018 Lebogang Junior Secondary School
	JC0087 Chamabona Junior Secondary School
Kweneng	JC0169 Motswasele Junior Secondary School
	JC0016 Letlole Mosielele Junior Secondary School
Southern	JC0067 Mathiba Junior Secondary School
South East	JC0102 Bokamoso Junior Secondary School

Table 3.8 shows schools of the best performing candidates in the 2022 JC examination and their regions. To be included in the outstanding performance list, the candidate must have been awarded an overall grade of **Merit**. In this instance, 7 candidates were awarded Merit in 2022 JCE compared to 14 in 2021. Central has 3 candidates awarded Merit grade, Kweneng have 2 while Southern and South East each have 1 candidate awarded a Merit grade.

4.0 REPORT SUMMARY

- Candidature increased by **1.3%** from 46 232 in 2021 to 46- 835 in 2022.
- Female candidates outnumber their male counterparts in majority of the subjects.
- The overall pass rate at grade E or better stood at 78.09% in 2022 compared to 79.02% in 2021, which represents a slight decline of 0.93%, while a slight improvement of 0.16% was observed at credit pass (A-C).
- There is vast variation between subjects obtaining grade C or better, with the highest (Art) obtaining **62.31%** while the least (General Science) obtained **2.56%**.
- The modal grade for majority of the subjects is D, with some having grade E as the mode, implying large proportion of candidates obtaining lower grades.
- All subjects with the exception of Art obtained less than 50% at grade C or better.
- Female candidates significantly outperformed their male counterparts in quality grades of A to C.
- There is a decrease in centres (29) obtaining 50% or more pass rate on A-C grades compared to 37 in the previous year.
- Seven (7) candidates (4 girls, 3 boys) obtained a Merit compared to fourteen (14) in 2021.